

Distribution of the Species and Subspecies of Cebids in Venezuela

Roberta Bodini and Roger Pérez-Hernández

ABSTRACTS

Thirteen species of Primates representing nine genera in the family Cebidae are found in Venezuela. The geographic distribution of these species exhibits four main patterns. *Alouatta* and *Cebus* are widely distributed in all parts of the country. Four genera, *Saimiri*, *Callicebus*, *Cacajao*, and *Chiropotes* are restricted to south-central Venezuela; their distribution is centered in the Amazonian lowlands. *Aotus* and *Ateles* are each represented by one species or subspecies in south-central Venezuela and another in northwestern Venezuela. *Pithecia* is mainly restricted to the Guianan highlands in eastern Venezuela, with a single known outlying locality in south-central Venezuela. Of the nine cebid genera in Venezuela, all occur in south-central Venezuela, four occur in northwestern and north-central Venezuela, and only three occur in eastern Venezuela. Distribution maps for the 13 species in Venezuela are presented with exact localities of specimens.

Nueve géneros de cébidos representados por trece especies se hallan en Venezuela. La repartición geográfica de las especies se resuelve en cuatro patrones geográficos principales. De este modo, *Alouatta* y *Cebus* son extensamente repartido por todo el país. La distribución de los géneros, *Saimiri*, *Callicebus*, *Cacajao* y *Chiropotes* está restringida al sur-central de Venezuela con concentración en las tierras bajas Amazónicas. *Aotus* y *Ateles* son representados, cada cual, por una especie (o subespecie), en el sur-central, y otra especie in el noroeste del país. *Pithecia* se reparte en las alturas guyanas venezolanas del este, y es conocido, a la vez, por un solo dato de captura del sur-central venezolano. En resumen, la totalidad de los nueve géneros está presente en el sur-central de Venezuela, cuatro de ellos en el noroeste y norte-central, y tres en la Venezuela oriental. La repartición de las trece especies está documentado por mapas.

Treze espécies de Primatas, representando nove gêneros da família Cebidae, são encontradas na Venezuela. A distribuição geográfica destas espécies exibem quatro padrões principais. *Alouatta* e *Cebus* espalham-se por todas partes do país. Quatro gêneros, *Saimiri*, *Callicebus*, *Cacajao*, e *Chiropotes*, limitam-se ao centro-sul de Venezuela; a Bacia Amazonica sendo seus focos de distribuições. *Aotus* e *Ateles* são representados por uma espécie ou subespécie cada no centro-sul da Venezuela, e por outra espécie no noroeste do país. *Pithecia* limita-se ao planalto Guianense, no leste da Venezuela, com apenas uma localidade conhecida no centro-sul do País. Em suma, todos nove gêneros de Cebidae ocorrem no centro-sul da Venezuela, quatro ocorrem no centro-norte e noroeste do País, e apenas três ocorrem no região leste da Venezuela. Apresentam-se mapas de distribuições das 13 espécies na Venezuela, com localidades exatas dos espécimes colecionados.

From the Instituto de Zoología Tropical, Universidad Central de Venezuela, Apartado 47058, Los Chaguaramos, Caracas 1041-A, Venezuela.

Introduction

Primates of the family Cebidae are some of the most conspicuous mammals in the Neotropics, as they are diurnal, often forage in large troops, and may be quite vocal. However, we actually know very little about the exact distributions of most species of cebids. In Venezuela, several authors have discussed cebids as part of generic revisions (see Elliot, 1912; Hershkovitz, 1949, and later works; Hill, 1960, 1962; Kellogg & Goldman, 1944) and in works on the status or collections of specific species (i.e., Bodini, 1983; Handley, 1976; Mondolfi & Eisenberg, 1979; Rudran & Eisenberg, 1982).

Herein we summarize the distribution of cebids in Venezuela based on recent collections, specimen records from several museums, and the literature. Specimens reported on are housed in the following collections: Estación Biológica Rancho Grande (EBRG); Museo de Biología, Universidad Central de Venezuela (MBUCV); Museo de Ciencias Naturales (MCN); and Museo de Historia Natural La Salle (MHNLS). Our objectives are to provide accurate locality records and distribution maps that may be utilized in future investigations.

Generic Distributions

The nine genera of cebids that inhabit Venezuela exhibit four main patterns of geographic distribution (figs. 1–7). (1) Two genera—*Alouatta* and *Cebus*—are widely distributed in all parts of the country. (2) Four genera—*Saimiri*, *Callicebus*, *Cacajao*, and *Chiropotes*—are restricted to south-central Venezuela, centering on the Amazonian lowlands (see Eisenberg & Redford, 1979). (3) Two genera—*Aotus* and *Ateles*—are each represented by one species or subspecies in south-central Venezuela and another in northwestern Venezuela or northwestern and north-central Venezuela, which is the region of the northeastern spurs of the Andean chain and the enclosed Maracaibo basin. (4) One genus—*Pithecia*—is mainly restricted to the Guianan highlands in eastern Venezuela, with a single known outlying locality in south-central Venezuela. In summary, of the nine cebid genera in Venezuela, all occur in south-central Venezuela (including the outlier record of *Pithecia*), four occur in northwestern and north-central Venezuela, and only three occur in eastern Venezuela.

Specific and Subspecific Distributions

Saimiri

In a recent revision of the squirrel monkeys, Hershkovitz (1984) recognized four species: *Saimiri boliviensis*, *S. oerstedii*, *S. sciureus*, and *S. ustus*. All those squirrel monkeys found in northern South America he referred to the single species *S. sciureus* (fig. 1). Squirrel monkeys from Amazonian Venezuela and adjacent Brazil and Colombia he regarded as *S. sciureus cassiquiarensis*. Hershkovitz (1984) plotted several localities in Territorio Federal Amazonas, but listed only a single specific locality: “Casiquiare, Río (mouth), 2°01'N, 67°07'W.” Hill (1960) previously had mapped the distribution of *S. sciureus* as occurring throughout all of Venezuela, although he listed only a single locality in the state of Bolívar (Camp Canaracuni, 4°36'N, 64°10'W). The name *cassiquiarensis* Lesson is based on Humboldt's description of a captive female from the banks of the Río Casiquiare, Amazonas, Venezuela.

SPECIMENS EXAMINED—Total 29. **Bolívar:** Canaracuni (4°36'N, 64°10'W). **Territorio Federal Amazonas:** Campo Cacuri (4°49'N, 65°26'W); Caño Yureba, Río Ventuari (3°35'N, 66°46'W); Río Puruname, 40 km from union with Río Orinoco (3°19'N, 65°15'W); Río Ventuari (3°59'N, 67°02'W); San Fernando de Atabapo (4°02'N, 67°37'W); San Juan de Manapiare (5°14'N, 66°02'W).

Aotus

Night monkeys are found from Panama throughout much of Amazonian South America to Paraguay. Historically, it has generally been assumed that all night monkeys represented the single species *Aotus trivirgatus*. However, in a recent revision of the genus, Hershkovitz (1983) recognized nine allopatric species. A tenth species, *Aotus hershkovitzi* from Colombia, has recently been proposed by Rámirez-Cerquera (1983). Two species of *Aotus*, *A. lemurinus* and *A. trivirgatus*, have been reported from Venezuela (fig. 2).

Aotus lemurinus griseimembra Elliot is known in Venezuela only from the extreme northwestern region, the states of Cojedes and Mérida (Hershkovitz, 1983), and the states of Táchira, Trujillo, and Zulia (Handley, 1976).

SPECIMENS EXAMINED—Total 10. **Zulia:** Campo El Rosario, Distrito Catatumbo (1°44'N, 67°03'W);

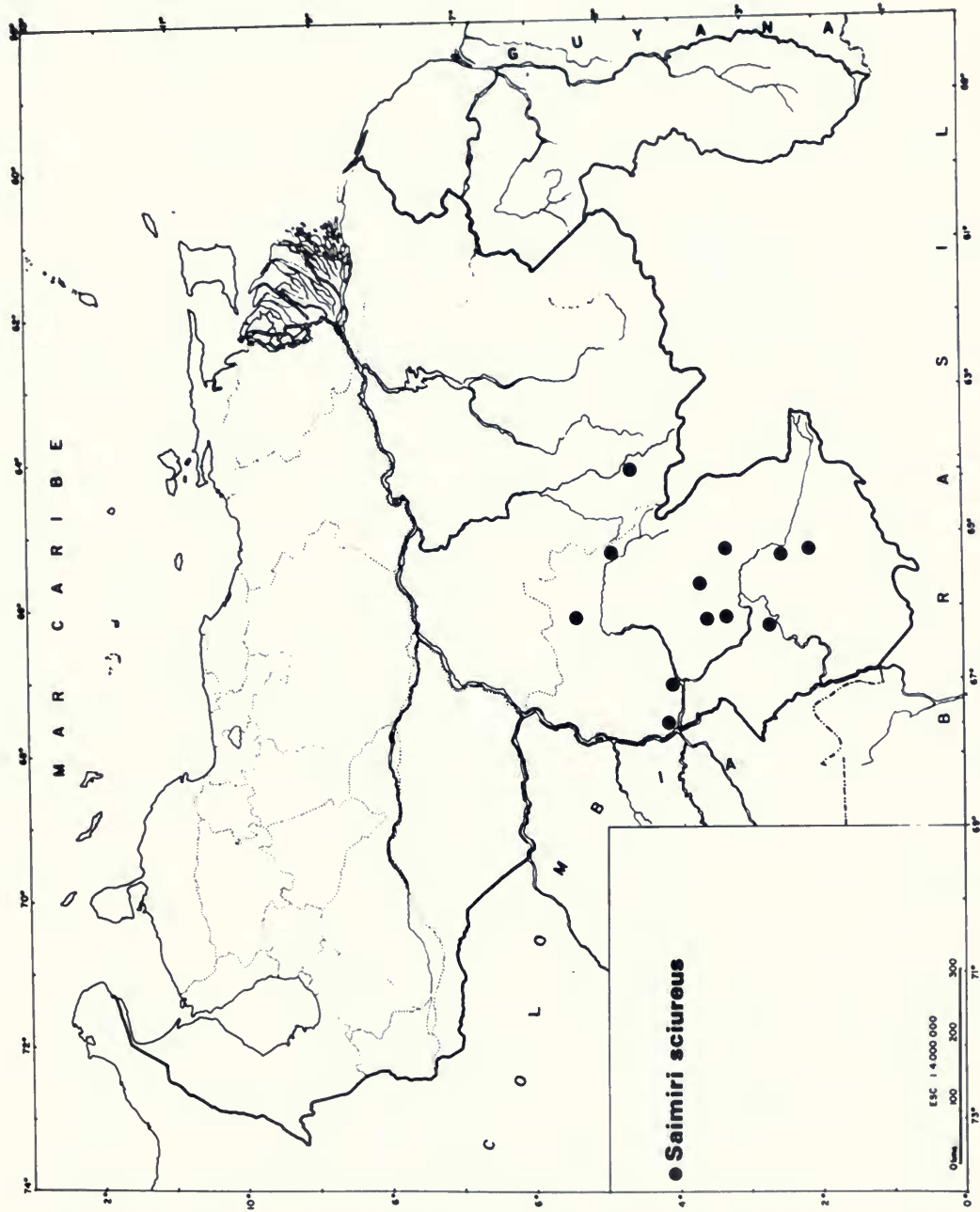


FIG. 1. Distribution of subfamily Saimirinae in Venezuela.

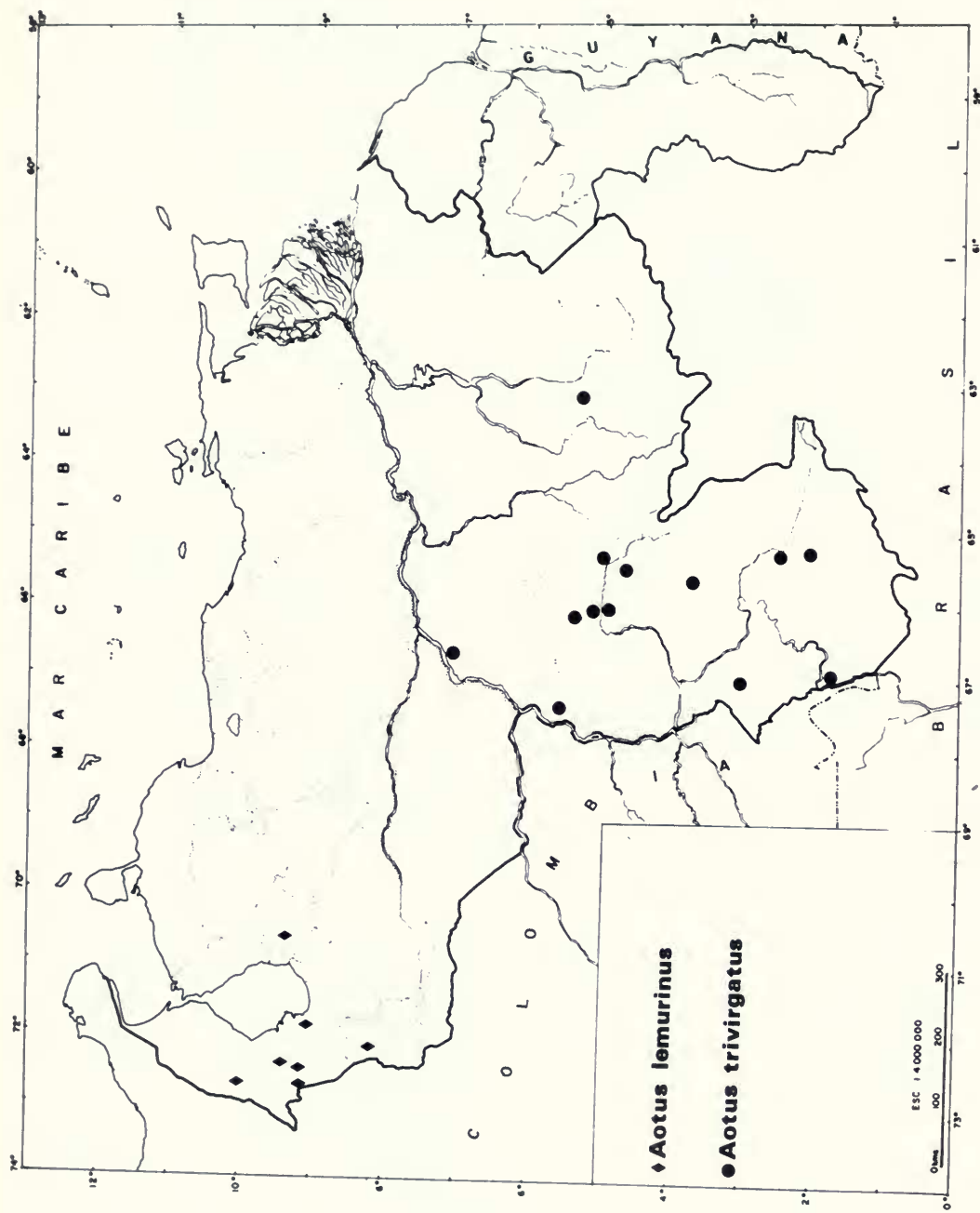


FIG. 2. Distribution of subfamily Aotinae in Venezuela.

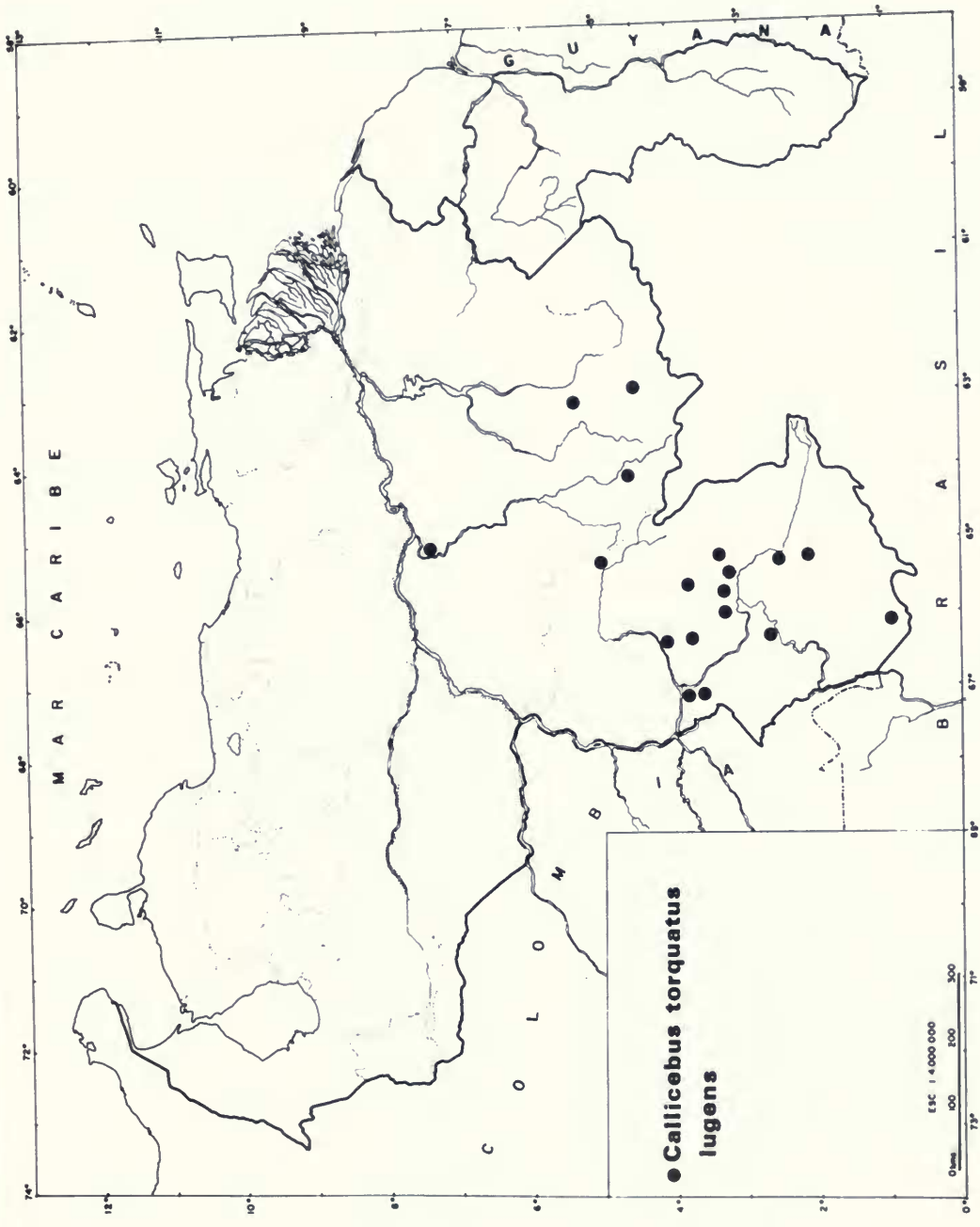


FIG. 3. Distribution of subfamily Callicebinae in Venezuela.

Reserva San Manuel, Los Cañaguatos (9°04'N, 71°56'W); Kunana, Río Negro, Sierra de Perijá (9°25'N, 72°25'W); Río Tocuco (72°25'W).

Aotus trivirgatus trivirgatus Humboldt is known from the region south of the Río Orinoco in Territorio Federal Amazonas and the state of Bolívar. The Venezuelan national collections contain specimens from Caño Manapiare and Río Antavari, and two literature records report specimens from the right bank of the Río Caroní (INPARQUES, 1982; MARNR-DGS-POA-SFS, 1982).

Our recent discovery of *Aotus trivirgatus* in Guyana to the east of the Río Caura, well outside of the Río Orinoco basin, led to an investigation of geographic variation in the species. Preliminary results suggest that these *A. trivirgatus* represent a new geographic race (Bodini & Ferreira, in prep.).

SPECIMENS EXAMINED—Total 11. **Bolívar:** Caño Manapiare (7°11'N, 66°40'W); Río Antavari (5°20'N, 63°10'W). **Territorio Federal Amazonas:** Alto Manapiare (5°03'N, 66°02'W); San Juan de Manapiare (5°14'N, 66°02'W); near Isla Cigarrón, Río Negro (1°44'N, 67°03'W); recently collected in La Neblina, east of Río Varía (0°59'N, 66°10'W).

Callicebus

The genus *Callicebus* is the sole representative of the subfamily Callicebinae and is found from northern South America south to northern Paraguay. Hershkovitz (1963) and Kinzey (1982) recognized three species, *Callicebus moloch*, *C. personatus*, and *C. torquatus*, of which only *C. torquatus* is found in Venezuela.

Callicebus torquatus lugens Humboldt is known in Venezuela south of the Río Orinoco (fig. 3). Hill (1960) originally suggested that *C. torquatus* is found as far east as Guyana, although this was questioned by both Handley (1976) and Hershkovitz (1963), who reported Venezuelan specimens only from Territorio Federal Amazonas. Handley (1976) reported 31 specimens from southern Territorio Federal Amazonas. Bodini (1981) reported specimens from Maripa, Camp Canaracuni, and the Río Antavari in Venezuela. Recent reports by Kinzey (1982) and Bodini (1981) confirm the presence of *C. torquatus* in Guiana Region.

SPECIMENS EXAMINED—Total 26. **Bolívar:** Canaracuni (4°36'N, 64°10'W); Maripa, 150 km from Ciudad Bolívar (7°22'N, 65°09'W); Río Antavari (5°20'N, 63°10'W); Alto Paragua (4°30'N, 63°00'W). **Territorio Federal Amazonas:** Alto Caño Caname, Departamento Atabapo (3°33'N,

67°06'W); Alto Ventuari (3°50'N, 67°04'W); Boca Caño Maica, Río Ventuari (66°30'W); Caño Yagua, Cerro Cucurito, Departamento Atabapo (3°38'N, 66°25'W); Cacuri, Alto Ventuari (4°49'N, 65°26'W); La Esmeralda (3°08'N, 65°32'W); Río Cunucunuma (3°10'N, 66°01'W); Río Puruname (3°19'N, 65°15'W); La Neblina, east of Río Varía (0°59'N, 66°10'W).

Alouatta

Alouatta is the only genus within the subfamily Alouattinae and is represented by some six species widely distributed in Central and South America.

A single species, *Alouatta seniculus*, is abundant and widely distributed in Venezuela. Hill (1962) recognized three subspecies of *A. seniculus* as occurring in Venezuela. *Alouatta seniculus seniculus* Linnaeus is found in extreme northwestern Venezuela, primarily in the states of Apure, Táchira, and Zulia, with a single record from Barinas (Ticoporo Forest, 8°06'N, 70°40'W). *Alouatta seniculus arctoidea* Cabrera, called the "Caracas howler monkey" by Humboldt, inhabits all the coastal region from Falcón to the state of Miranda. Cabrera (1958) proposed Caracas as the type locality. A third subspecies, *A. seniculus stramineus* Humboldt, inhabits all of Venezuela south of the Río Orinoco in Territorio Federal Amazonas and the state of Bolívar (fig. 4).

In addition to these three subspecies, we believe a fourth, previously unrecognized, form exists and is widely distributed throughout the Venezuelan llanos. This undescribed subspecies is characterized by coloration and size. The southern limit of its distribution is clearly defined by the Río Orinoco, but its northern and western limits in the Andean piedmont are as yet undetermined.

Howler monkeys are extremely adaptable to a wide array of environments, and we believe they are found throughout Venezuela. Their apparent absence in certain regions probably reflects lack of collecting rather than true distributional gaps, as our records demonstrate for the state of Anzoátegui. The problem of current and historical distribution and systematic relationships of the various populations in Venezuela is in need of study.

SPECIMENS EXAMINED—Total 80. **Anzoátegui:** Los Cocos, Río Caris (8°30'N, 64°05'W). **Apure:** Caño San Agustín, Selva de San Camilo (7°19'N, 71°57'W); Hato El Frío (7°44'N, 68°54'W); Las Raicitas, El Samán (7°55'N, 68°40'W). **Aragua:** Asentamiento Los Castillos, Turagua (10°09'N, 67°31'W); Cumbre de Guacamaya (10°21'N, 67°40'W); Los Picachos, Rancho Grande (10°21'N,

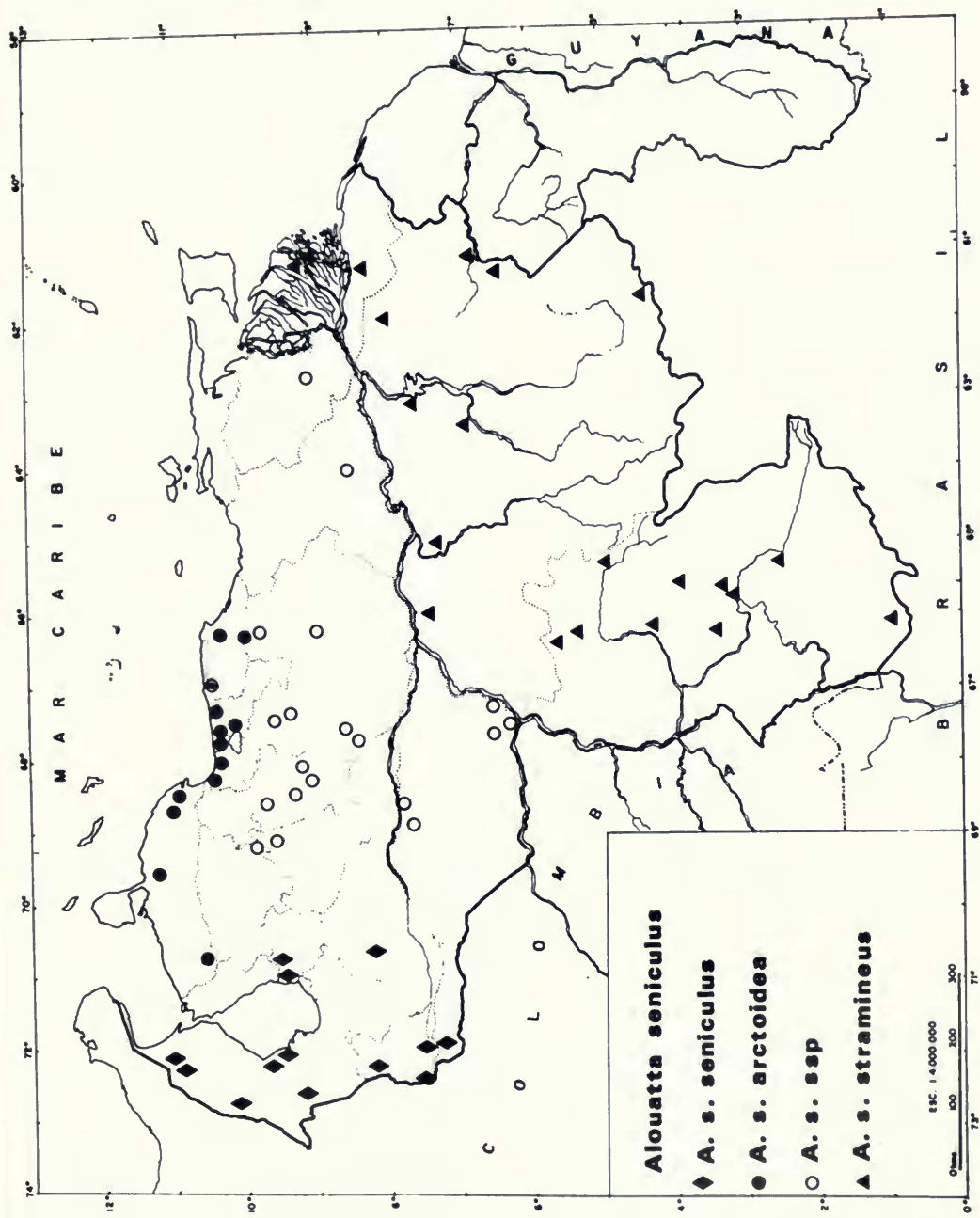


FIG. 4. Distribution of subfamily Alouattinae in Venezuela.

67°41'W). **Barinas:** Reserva Forestal Ticoporo (8°09'N, 70°40'W). **Bolivar:** Guayoba, Río Caura, 4 km from Maripa (7°20'N, 65°10'W); Hato Bella Vista, El Palmar (8°00'N, 62°00'W); Represa del Guri, Operación Rescate (7°40'N, 63°00'W); San Martín de Turumban, Anacoco-Cuyuní (6°42'N, 61°02'W). **Carabobo:** Las Quiguas, San Esteban (10°25'N, 68°01'W). **Cojedes:** Hato Barbasco (9°04'N, 68°08'W); Hato Itabana, 38 km from Las Vegas (9°17'N, 68°13'W); Las Queseras, El Baul (8°25'N, 68°17'W); Montaña Las Lomas, San Carlos (9°38'N, 68°34'W). **Distrito Federal:** Hacienda El Limón (10°28'N, 67°17'W). **Falcon:** Sanare, Departamento Silva (10°23'N, 68°25'W); Sierra San Luis (11°15'N, 69°10'W). **Guarico:** Corozo Pando (8°14'N, 67°17'W); Hato Mapurite, 40 km N of Calabozo (9°17'N, 67°24'W); Manapiare, near San Antonio (9°17'N, 66°11'W); Río Tiznado (8°18'N, 67°48'W). **Lara:** Cumbre de Las Trojas, 45 km S of Cabudare (9°45'N, 69°07'W). **Miranda:** Río Negro (10°20'N, 66°15'W); La Guzmanera, Guatopo (10°00'N, 66°15'W). **Portuguesa:** Agua Blanca (9°40'N, 69°07'W). **Táchira:** Cerro El Teteo, Buragua (7°30'N, 71°57'W); La Fría (8°13'N, 72°14'W); Pañamo Tamá (7°27'N, 72°26'W). **Territorio Federal Amazonas:** Cacuri, Alto Ventuari (4°49'N, 65°26'W); Caño Yureba, Ventuari (3°35'N, 66°46'W); Río Hacha, Alto Ventuari (3°47'N, 65°38'W); Río Puriname, 40 km from confluence of Río Orinoco (3°19'N, 65°15'W); San Juan de Manapiare (9°05'N, 66°02'W); Cerro La Neblina, E of Río Varía (0°59'N, 66°10'W). **Territorio Federal Delta Amacuro:** Caño Caneima (9°05'N, 60°55'W); Güiniquina (9°10'N, 61°06'W). **Zulia:** Laguna de Manaties, Departamento Catatumbo (9°27'N, 72°02'W); La Victoria, Río Negro (9°36'N, 72°15'W); Río Guasare (11°02'N, 72°05'W); Sierra de Perijá (9°00'N, 72°00'W).

Chiropotes

The bearded sakis comprise two species limited to northern South America (Cabrera, 1958; Hershkovitz, 1977; Mittermeier & Coimbra-Filho, 1981). One species is found in southern Venezuela represented by a single subspecies, *Chiropotes satanas chiropotes* Humboldt (fig. 5). All of our records and those reported by Handley (1976) are from Territorio Federal Amazonas. Cruz Lima (1945) and Rudran and Eisenberg (1982) proposed the occurrence of this species in the state of Bolivar on the basis of Humboldt's description; Mondolfi (1976) reported observations of *Chiropotes* at

Maripa and Caño Maniapure (Bolivar), but we are aware of no specimens from this region.

SPECIMENS EXAMINED—Total 29. **Territorio Federal Amazonas:** Cacuri, Alto Ventuari (4°49'N, 65°26'W); Caño Yureba, Departamento Atabapo (3°31'N, 66°44'W); Caño Yagua, Cerro Cucurito (3°31'N, 66°44'W); Laguna de Chiripo, Caño Blanco (3°27'N, 66°40'W); Río Ocamo, Alto Orinoco (2°44'N, 65°11'W); Puerto Ayacucho (5°36'N, 67°35'W); Río Orinoco, S of San Fernando de Atabapo (4°00'N, 67°38'W); San Fernando de Atabapo (4°02'N, 67°37'W); San Juan de Manapiare (5°14'N, 66°02'W).

Cacajao

The genus *Cacajao*, or uakaris, contains two species which are found in northern South America (Cabrera, 1958; Hershkovitz, 1972; Mittermeier & Coimbra-Filho, 1981). One species, *Cacajao melanocephalus*, is found in Venezuela restricted to the upper Orinoco region of southern Territorio Federal Amazonas (fig. 5). Although few specimens exist in collections, they appear to be abundant.

SPECIMENS EXAMINED—Total 2. **Territorio Federal Amazonas:** Alto Caño Atacavi, Departamento Casiquiare (3°05'N, 67°02'W); La Neblina, E of Río Varía (0°59'N, 66°10'W).

Cebus

The capuchin monkeys are found from Honduras south through Central America and the northern two-thirds of South America. Four species currently are recognized (Cabrera, 1958; Hershkovitz, 1972). Three species of *Cebus* are represented in Venezuela: *Cebus albifrons*, *C. apella*, and *C. nigrivittatus* (Hershkovitz, 1949, 1958).

Three subspecies of *Cebus albifrons* are found in Venezuela (fig. 6). *Cebus albifrons adustus* Hershkovitz was described on the basis of three specimens from "near head of Río Cogollo (Apón) at eastern base of Sierra de Perijá, about 5 kilometers northwest of Machiques, Lake Maracaibo region, Zulia" (Hershkovitz, 1949, p. 369). We report additional specimens from Río Guasare and Kasmera. This subspecies is restricted to the Sierra de Perijá of extreme northwestern Venezuela and adjacent Colombia. *Cebus albifrons leucocephalus* Gray is found in extreme western Venezuela, in the region south of the Lago de Maracaibo basin,

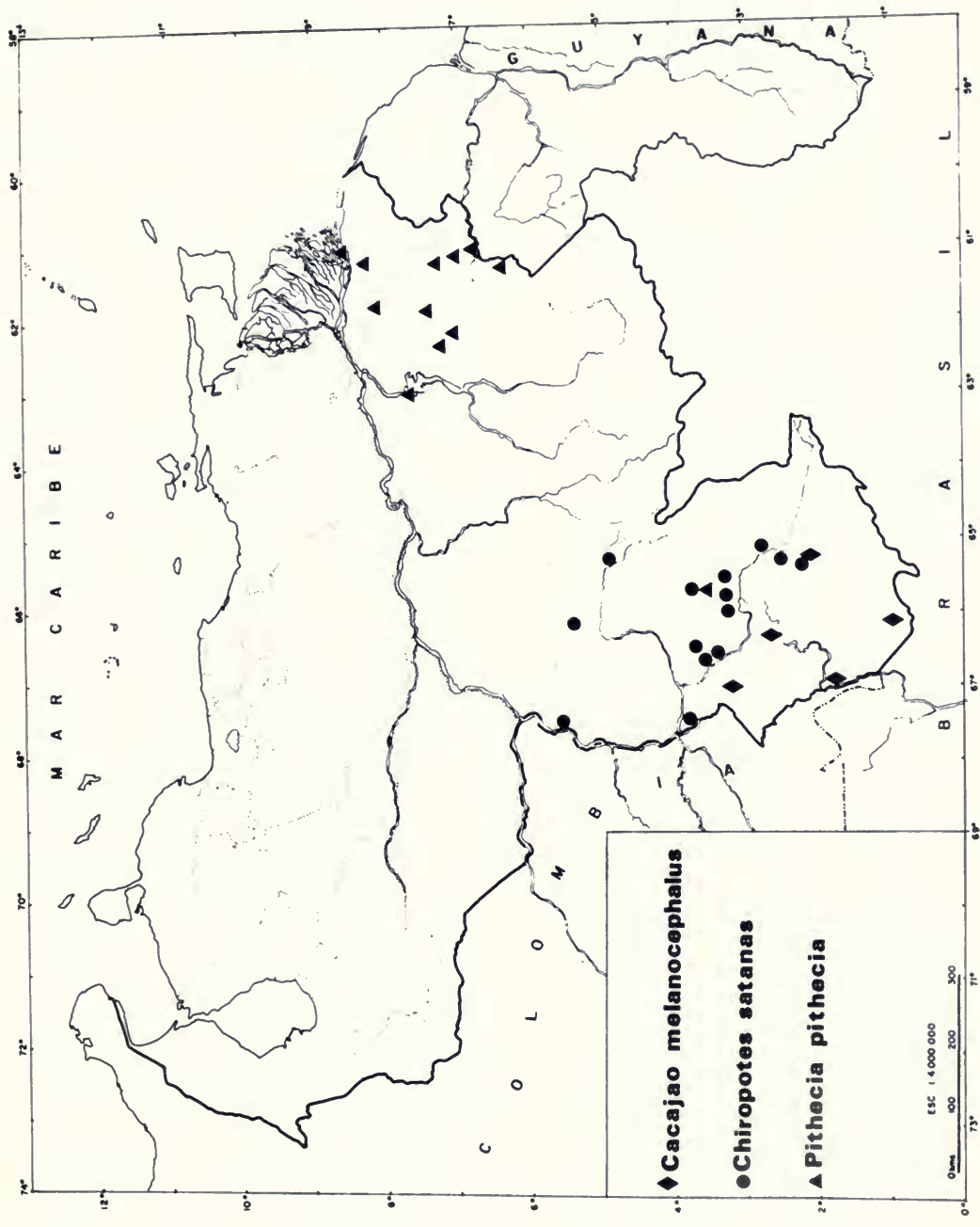


FIG. 5. Distribution of subfamily Pitheciinae in Venezuela.

and the states of Apure, Mérida, Táchira, and Zulia. *Cebus albifrons unicolor* Spix is found in extreme southern Venezuela in Territorio Federal Amazonas. Hershkovitz (1949) reported specimens from Marimonda, Río Orinoco, and from Solano, Río Casiquiare. Handley (1976) reported specimens from Río Mavaca and Tamatama. All locality records for this subspecies in Venezuela are south of the Río Ventuari.

SPECIMENS EXAMINED—Total 15. **Apure:** Caño San Agustín, Selva de San Camilo (7°19'N, 71°57'W). **Mérida:** Palmichoso, S of Las Virtudes (9°09'N, 70°57'W). **Táchira:** La Fría (8°13'N, 72°14'W). **Territorio Federal Amazonas:** Caño Yagua, Cerro Cucurito, Departamento Atabapo (3°38'N, 66°25'W); near Boca Padamo, left side of Río Orinoco (3°02'N, 65°13'W). **Zulia:** Kasmera, Perijá (10°05'N, 72°45'W); Kunana (9°36'N, 72°15'W); Río Bravo, Distrito Catatumbo (9°05'N, 72°22'W); Río Guasare (11°02'N, 72°05'W).

Cebus apella is represented in Venezuela by two subspecies (fig. 6). *Cebus apella apella* Linnaeus is restricted to Amazonian Venezuela, the Territorio Federal Amazonas, and is found along both banks of the upper Orinoco. *Cebus apella margaritae* Hollister is endemic to and restricted to Margarita Island. The 800-km gap between the ranges of these two subspecies is striking and unexplained.

SPECIMENS EXAMINED—Total 10. **Nueva Esparta:** Sierra de Copey (11°03'N, 63°56'W). **Territorio Federal Amazonas:** Alto Caño Caname (3°22'N, 67°08'W); Caño Yapacana (3°30'N, 66°45'W); San Fernando de Atabapo (4°02'N, 67°37'W).

Cebus nigrivittatus is widely distributed in Venezuela and represented by perhaps five subspecies (fig. 6) (Hershkovitz, 1949; Cabrera, 1958). *Cebus nigrivittatus apiculatus* was described by Elliot (1912) on the basis of specimens from La Unión, Río Caura, near its confluence with the Río Orinoco. It is distributed throughout central Venezuela south of the Orinoco between the Río Caroní and the Río Ventuari.

Cebus nigrivittatus brunneus was described by J. A. Allen (1914) from specimens from Aroa, a station on the Bolívar Railway, Yaracuy, northwestern Venezuela. Hershkovitz (1949) reported an additional specimen from the Paria Peninsula. These records plus our specimens suggest that *C. n. brunneus* is continuously distributed throughout the Cordillera de la Costa of extreme northern Venezuela. *Cebus nigrivittatus nigrivittatus* Wagner is restricted in Venezuela to the Amazonian region of Territorio Federal Amazonas. *Cebus nigrivittatus olivaceus* Schömburg is found in southeastern Venezuela. Hershkovitz (1949, p. 348) re-

ports the type locality as "Vicinity of 'Our Village,' said to be situated at latitude 4°57'N., 61°1'W., altitude 3,100 feet above sea level, southern foot of Mount Roraima."

We believe that an undescribed subspecies, *Cebus nigrivittatus* subsp., is widely distributed throughout central and northern Venezuela north of the Orinoco. The status of this population is currently under study.

The Orinoco Delta region, which Eisenberg and Redford (1979) excluded from their consideration of biogeographic regions due to insufficient data, is now shown by the distributions of *Alouatta*, *Cebus*, and *Pithecia* to be clearly aligned with the Guyana highlands. The Llanos region now extends up to the western edge of the delta, but does not include it, as demonstrated by the distributions of *Alouatta* and *Cebus*.

SPECIMENS EXAMINED—Total 75. **Anzoategui:** Los Cocos, Río Caris (8°30'N, 64°05'W); 10 km W of Laguna de Unare (10°02'N, 65°12'W); Morichal Largo [between Anzoategui and Monagas] (8°18'N, 63°15'W). **Aragua:** Rancho Grande (10°10'N, 67°19'W). **Barinas:** Reserva Forestal Ticoporo, on Barinas-Pedregal road (8°03'N, 70°18'W). **Bolívar:** Caño La Urbina (7°15'N, 66°25'W); Carretera Caicara-S. Juan de Manapiare, km 175 (6°02'N, 66°29'W); Carretera El Dorado-Santa Elena, km 33 (6°12'N, 61°14'W); Curaima, El Palmar (8°01'N, 61°26'W); El Dorado-Santa Elena, km 121 (5°18'N, 61°11'W); Guayopo, Río Caura, 14 km from Maripa (7°09'N, 65°10'W); Canaracuni (4°17'N, 64°05'W); Guri, Operación Rescate (7°18'N, 63°00'W); Río Antavari (5°09'N, 63°05'W); Río Marajano, Meseta de Jaua (4°08'N, 64°11'W); Río Villacoa, 4 km N of mouth (6°16'N, 67°05'W); San Martín de Turumban, Río Cuyuní (6°19'N, 61°09'W). **Carabobo:** Bahía de Patanemo (10°12'N, 67°26'W); Urama (10°12'N, 68°08'W). **Cojedes:** Cerro Azul, La Blanquera (8°26'N, 68°07'W); Montaña Las Loma, San Carlos (9°17'N, 68°16'W); Pica, Las Vegas (9°15'N, 68°17'W). **Distrito Federal:** El Avila, Caracas (10°14'N, 66°13'W); Hacienda El Limón (10°13'N, 67°08'W). **Falcon:** Sanare, Distrito Silva (8°23'N, 68°12'W). **Guarico:** Hato Flores Moradas, Calabozo (8°23'N, 67°13'W); Hato Mapurite, 40 km N of Calabozo (9°08'N, 67°11'W); Parmana (7°28'N, 65°18'W); San José de Tiznados (9°16'N, 67°16'W). **Lara:** La Pastora, 11 km SSW of Sanare (9°21'N, 70°07'W). **Miranda:** Río Negro (10°20'N, 66°17'W); La Guzmanera, Guatopo (10°00'N, 66°15'W). **Territorio Federal Amazonas:** Alto Manapiare (5°13'N, 66°01'W); Alto Ventuari (4°45'N, 65°20'W); Caño Yureba, Río Ventuari (3°16'N, 66°21'W); Caño

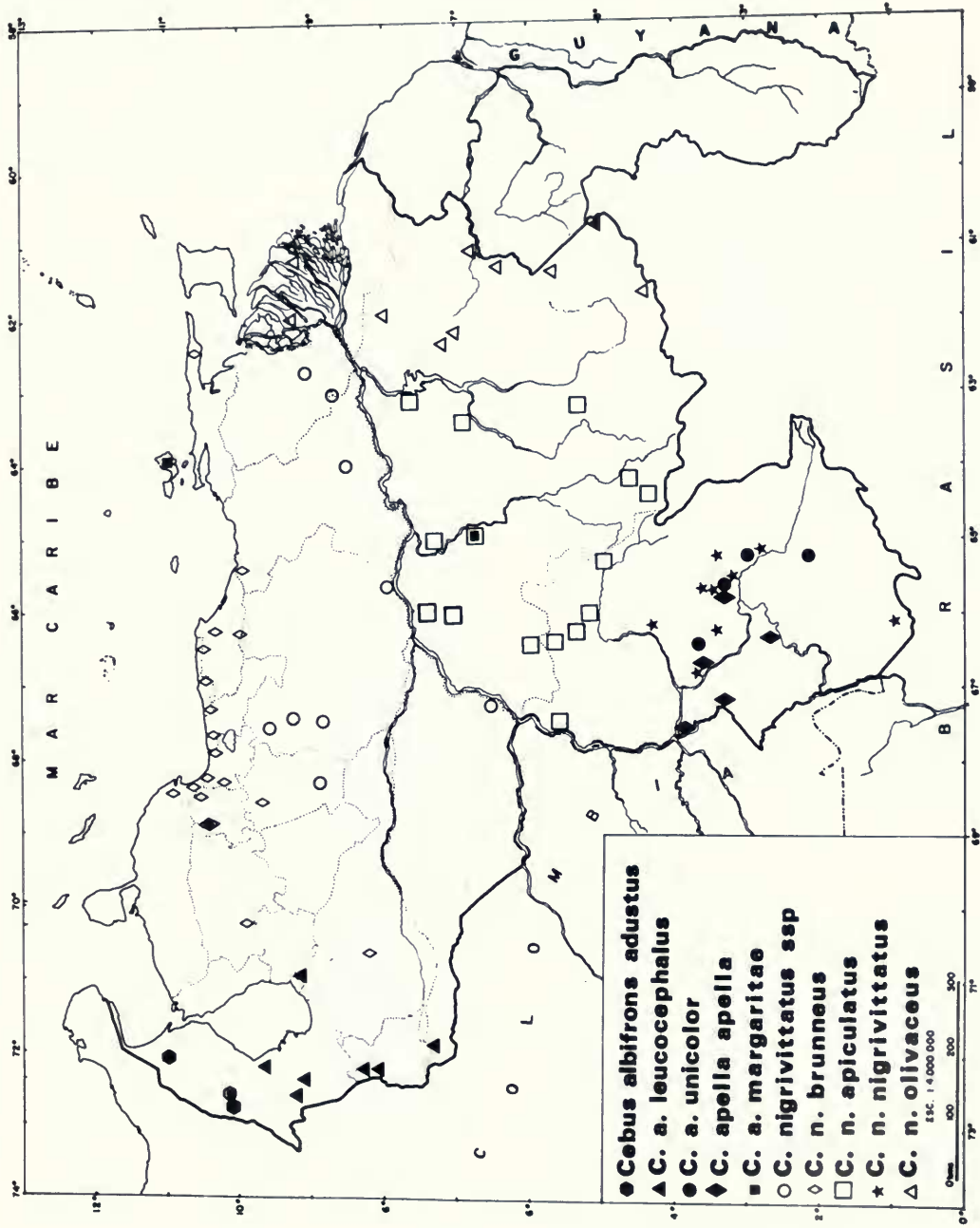


FIG. 6. Distribution of subfamily Cebinae in Venezuela.

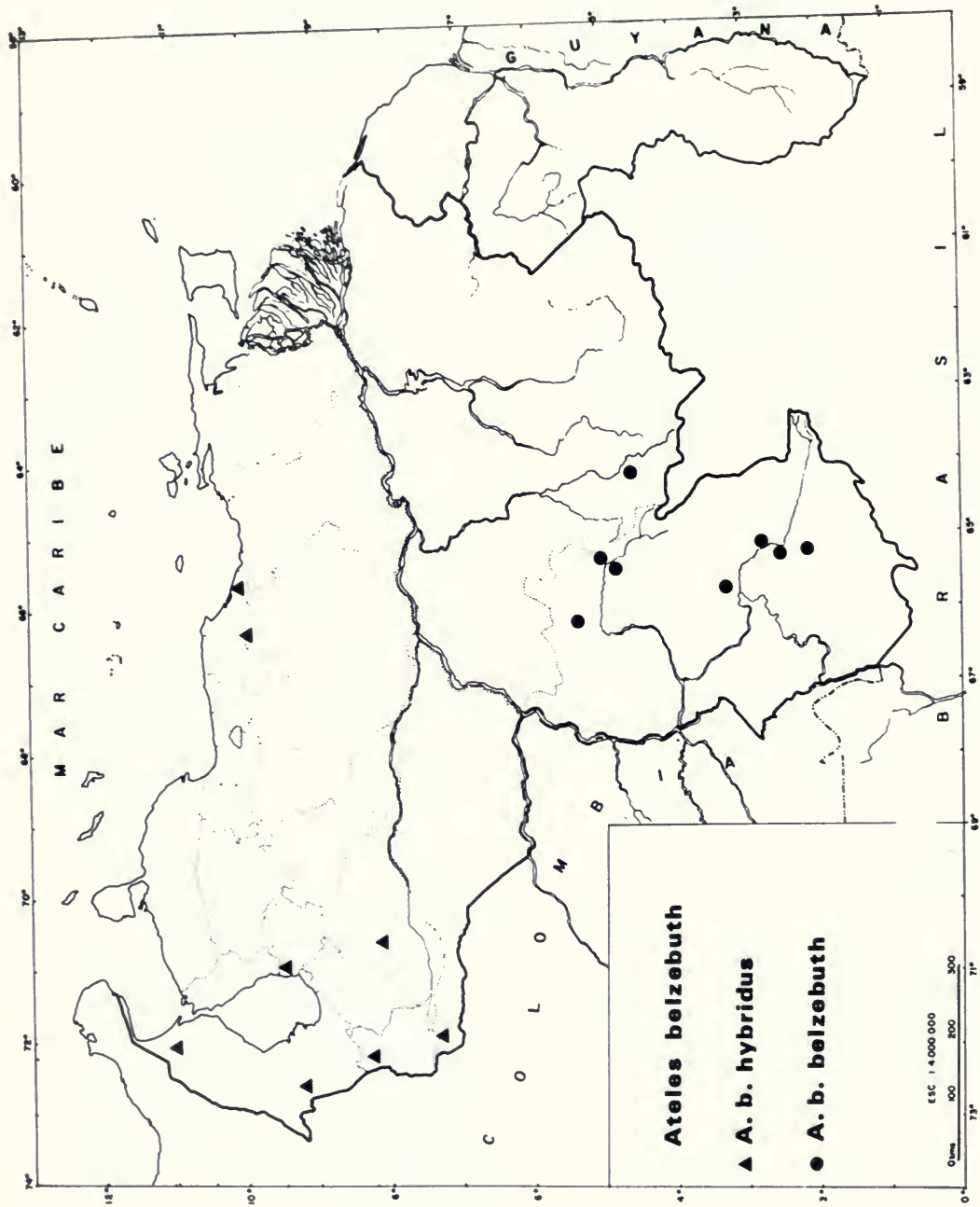


FIG. 7. Distribution of subfamily Atelinae in Venezuela.

Mayaba, Río Ventuari (4°07'N, 66°16'W); Caño Morrocoy, Alto Ventuari (5°08'N, 66°02'W); La Esmeralda (3°08'N, 65°32'W); Ocamo, Río Ocamo (2°20'N, 65°15'W); Puruname, 40 km from Río Orinoco (3°19'N, 65°15'W); La Neblina, E of Río Varía (0°59'N, 66°10'W). **Territorio Federal Delta Amacuro:** Caño Araguabisi (9°12'N, 60°27'W); Güiniquina (9°10'N, 61°03'W); Tobejuba, Guayo (9°09'N, 61°25'W). **Yaracuy:** Agua Negra (10°14'N, 68°14'W); Carretera Boca de Aroa, 20 km from Palmasola (10°01'N, 69°27'W).

Ateles

Spider monkeys are widely distributed from northeastern Mexico throughout tropical South America. Four species are recognized, of which only *Ateles belzebuth* occurs in Venezuela (fig. 7).

Ateles belzebuth belzebuth Geoffroy is found in southern Venezuela, south of the Río Orinoco; most records are from Territorio Federal Amazonas. Kellogg and Goldman (1944) indicate a wide distribution in Guyana and report the Venezuelan localities of La Unión, Río Mato, and El Llagual (on both banks of the Río Caura).

Ateles belzebuth hybridus Geoffroy is known from northern and western Venezuela (Hershkovitz, 1949; Cabrera, 1958; Kellogg & Goldman, 1944). Handley (1976) reported specimens from Apure and Trujillo in western Venezuela. Our specimens are from the states of Barinas, Táchira, and Zulia. Mondolfi and Eisenberg (1979) reported it from Cúpira and Guatopo, state of Miranda, suggesting a discontinuous distribution on the coast.

SPECIMENS EXAMINED—Total 16. **Barinas:** Reserva Forestal de Ticoporo, Sabana de Anare (8°06'N, 70°40'W). **Bolivar:** Canaracuni (4°06'N, 64°10'W). **Miranda:** Cúpira (10°10'N, 65°44'W). **Táchira:** La Fría (8°13'N, 72°14'W). **Territorio Federal Amazonas:** Cacuri, Río Ventuari (4°49'N, 65°26'W); Río Ocamo, Alto Orinoco (2°44'N, 65°11'W); Salto del Oso, Alto Ventuari (4°55'N, 65°25'W); San Juan de Manapiare (5°14'N, 66°02'W). **Zulia:** Río Guasare (11°02'N, 72°05'W).

Lagothrix

Woolly monkeys have not been collected in Venezuela; however two subspecies of *Lagothrix lagothricha* are to be expected: *L. lagothricha lagothricha* should be found in Territorio Federal

Amazonas south of the Río Ventuari, and *L. l. lugens*, in the Selva de San Camilo, state of Apure (Fooden, 1963; Hernández-Camacho & Cooper, 1976).

Pithecia

Sakis are found only in northern South America; Hershkovitz (1979) recognized four monotypic species, of which only *Pithecia pithecia* Linnaeus is found in Venezuela. *P. pithecia* is found in Venezuela south of the Río Orinoco and throughout the Guianas and northeastern Brazil. In Venezuela specimens have been reported primarily from the extreme northeastern region, the state of Bolívar and Territorio Federal Delta Amacuro (fig. 5), with a single outlier locality record for Belén, Río Cunucunuma, Territorio Federal Amazonas (3°39'N, 65°46'W) (Handley, 1976). If the distribution proposed by Hershkovitz (1979) and Mittermeier and Coimbra-Filho (1981) is correct, *P. pithecia* should inhabit the entire region between the upper Río Orinoco and the Río Caroní, an enormous area for which no specimens have been recorded.

SPECIMENS EXAMINED—Total 24. **Bolivar:** Río Curumo (7°15'N, 61°20'W); Río Grande (8°16'N, 61°17'W); Gurisoco, El Palmar (8°62'N, 61°26'W); La Trinidad, El Palmar (7°12'N, 61°23'W); Guri, Operación Rescate (7°18'N, 63°00'W); Río Boto-namo, near Río Cuyuní (6°59'N, 61°11'W); San Martín de Turumban, Río Cuyuní (6°59'N, 61°02'W). **Territorio Federal Delta Amacuro:** Altiplanicie de Nuria (7°50'N, 61°18'W); Yotacuay, SW of Cupiare (8°30'N, 61°00'W).

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